date of provisional application 60/028,711 (Paper 13, page 2). The Examiner has stated that the amino acid sequence of DR3 (SEQ ID NO: 4 of the '402 patent) has 100 percent identity to SEQ ID NO: 2 of the instant application (AIR polypeptide), and that the amino acid sequence of DR3-V1(SEQ ID NO: 2 of the '402 patent) has 97.6 percent identity to SEQ ID NO: 2 of the instant application (Paper 13, page 3).

Based on the earliest effective date of the '402 patent as a reference of March 12, 1996, the Examiner has stated that claims 1-3, 6, 7, 10, 11, 13, 14, 16 and 22-26 are anticipated under 35 U.S.C. § 102 (e) by the '402 patent to Yu et al. Applicants traverse this rejection for the following reasons.

Applicants submit herein a Declaration under 37 C.F.R §1.131 to establish that the subject matter of the pending claims was invented in the United States before March 12, 1996. In this Declaration the inventors Dr. Raymond Goodwin and Dr. Mariapia Degli-Esposti declare that they isolated a cDNA encoding the full-length AIR polypeptide (SEQ ID NO: 2 of the present application) before March 12, 1996. This Declaration is supported by Exhibits A and B attached herein.

As described in the instant application, (for example, on pages 18 and 19 of the specification), an analysis of clones derived from a human peripheral blood T cell (hu PBT) library led to the isolation of a full-length cDNA transcript encoding the AIR polypeptide (SEQ ID NO: 2). Page 1 of Exhibit A is a page from a laboratory notebook showing DNA prepared from seven colonies of clone 18.1. Clone 18.1 is the full-length cDNA referred to in the present application, on page 2, lines 31 to 34, and page 19, lines 8 through 18. The upper gel on page 1 shows PCR products generated using oligonucleotide primers showing that all seven colonies of clone 18.1 have inserts. Oligonucleotide primers 18999 and 19000 identified on page 1 of Exhibit A were synthesized based on EST sequences identified in the NCBI EST database as having some homology to human Tumor Necrosis Factor receptor type I, as described on page 18 of the instant patent application. The lower gel on page 1 of Exhibit A shows DNA from clone 18.1 after digestion with EcoRI restriction enzyme.

Page 2 of Exhibit A is a page of a laboratory notebook describing the preparation of DNA from four hu PBT clones 2.1, 17.1, 17.2, and 18.1 for sequencing. Page 3 of Exhibit A shows a picture of a gel of the DNA from clones 2.1, 17.1, 17.2 and 18.1 which was submitted for sequencing. These clones are the clones referred to in the present patent application on page 19, line 8 to 12, as the additional clones isolated from the human peripheral blood T-cell library. All of the activities recorded on these notebook pages were completed in the United States prior to March 12, 1996.

Page 1 of Exhibit B is a copy of the IMMUNEX DNA Sequence Request form showing a request for sequencing DNA prepared from clones 2.1, 17.1, 17.2, and 18.1 isolated from the human PBT library. The DNA was prepared as described in the laboratory notebook pages of Exhibit A. This Request form was completed and submitted prior to March 12, 1996. Page 2 of Exhibit B shows the sequence of the 18.1 clone ("Hu TNFR-like") cDNA which was sequenced and entered into an internal Immunex database in the United States prior to March 12, 1996. The nucleotides encoding the AIR polypeptide are contained within this sequence. SEQ ID NO:1 of the present application, which include the nucleotides encoding the AIR polypeptide of SEQ ID NO:2 of the present application, is indicated by the parenthesis drawn on the sequence.

Therefore, Applicants submit that the enclosed Declaration and accompanying Exhibits A and B establish that the claimed subject matter was invented before March 12, 1996, which is the earliest effective date of U.S. Patent No: 6,153,402 to Yu. et al. as a reference under 35 U.S.C. § 102 (e). In light of the accompanying Declaration and Exhibits, Applicants submit that the rejection of the pending claims on the basis of 35 U.S.C. § 102 (e) has been overcome.

CONCLUSION

In light of the foregoing remarks and the Declaration under 37 C.F.R §1.131 with accompanying Exhibits A and B submitted herein, Applicants respectfully request that the rejection of claims 1-3, 6, 7, 10, 11, 13, 14, 16 and 22–26 under 35 U.S.C. § 102 (e) be

withdrawn, and the claims allowed. Applicants' Attorney requests that the Examiner call her at the number given below if it would assist in the prosecution of this application.

Respectfully submitted,

Christine Bellas

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Registration No. 34,122
Attorney for the Applicants

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date shown below.

Date: January 21, 2003 Signed: Kathleen F. Prindle

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#17
AJ.J
3/25/03

In the Application of:
Mariapia A. Degli-Esposti and Raymond Goodwin

Docket No.: 2849-A

Serial No: 08/943,776

Examiner: Lazar Wesley, E.

Filed: October 3, 1997

Group Art Unit: 1646

For: NOVEL RECEPTOR THAT CAUSES CELL DEATH

Assistant Commissioner for Patents
Washington DC 20231

DECLARATION UNDER 37 C.F.R § 1.131

Dear Sir:

We, the undersigned, hereby declare that:

1. We are the same Raymond Goodwin and Mariapia A. Degli-Esposti named as co-inventors on the above-identified application serial number 08/943,776. We the co-inventors isolated a cDNA encoding the full-length AIR polypeptide prior to March 12, 1996, as evidenced by Exhibits A and B enclosed herein. All actions, events and observations described in this Declaration were completed in the United States prior to March 12, 1996.

2. Exhibit A includes copies of pages from a laboratory notebook. Page 1 of Exhibit A shows gels of plasmid DNA prepared from seven colonies of clone 18.1 isolated from a human peripheral blood T cell (hu PBT) library. The upper gel shows PCR products generated using oligonucleotide primers 18999 and 19000 to show that all seven colonies have inserts. The lower gel shows DNA prepared from clone 18.1 colonies after digestion with EcoRI restriction enzyme. Page 2 (bottom half) of Exhibit A describes the preparation of DNA from four hu PBT clones 2.1, 17.1, 17.2, and 18.1, which was then submitted for sequencing. Page 3 of Exhibit A shows a gel of the DNA prepared from clones 2.1, 17.1, 17.2, 18.1 submitted for sequencing.

3. Exhibit B page 1 is a copy of an IMMUNEX DNA Sequence Request form showing a request for sequencing the cDNAs prepared from clones 2.1, 17.1, 17.2, 18.1 as described above. This Request Form was submitted prior to March 12, 1996. Exhibit B page 2 shows the sequence of the 18.1 clone ("Hu TNFR-like") cDNA which was sequenced and entered into an internal Immunex database prior to March 12, 1996. The nucleotides identical to SEQ ID NO: 1 of the present application, which are the nucleotides encoding the AIR polypeptide (SEQ ID NO:2), are contained within this sequence, and are indicated by the parenthesis drawn on the sequence.

4. Clones 2.1, 17.1, 17.2, and 18.1 referred to in paragraphs 2 and 3 above are the clones described on page 19, lines 8 through 11 of the present application. The sequence of the insert in clone 18.1 contains the cDNA encoding the AIR polypeptide (SEQ ID NO: 2) as described in the present application on page 2, lines 32 to 37, page 19, lines 15 to 18, and as shown in SEQ ID NO: 1. The portion of this sequence identical to SEQ ID NO: 1 is contained within the parenthesis indicated on this sequence.

5. Exhibits A and B are sufficient to show that cDNA clone 18.1 encoding the AIR polypeptide of SEQ ID NO: 2 had been isolated before March 12, 1996. The work recorded in the laboratory notebook pages in Exhibit A and the sequencing work shown in Exhibit B were completed in the United States prior to March 12, 1996.

6. We further declare that all statements made herein of our own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like

so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1/21/03 — Raymond Goodwin
Date — Raymond Goodwin

15 January 2003 — Mariapia Degli Esposti
Date — Mariapia A. Degli-Esposti

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on the date shown below.

Date: January 21, 2003 Signed: Kathleen F. Prindle

TITLE Human pBT λ DNA 18.1 Hu pBT Rescript Sequences

Project No.

Book No.

From Page No.

Hu PBT 18.1 clone in pBS - DNA was prepared for 7 colonies needs to be checked for presence of insert

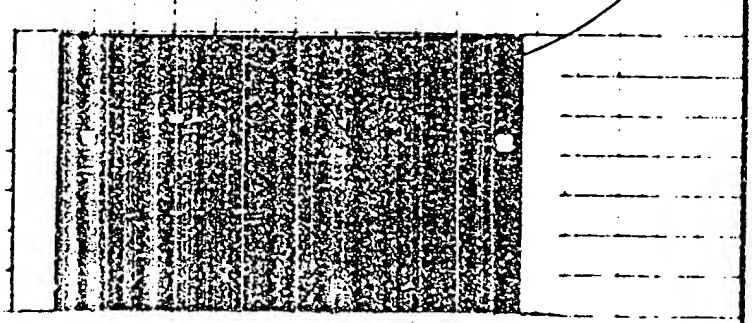
PCR with EST specific primers 18999 and 19000

Template - 2μl DNA

PCR MM

10x PCR buffer #7	50μl	94°C	5 min
25mM dNTPs	4μl	94°C	45"
10μM 18999	50μl	55°C	45" } 30 cycles
10μM 19000	50μl	72°C	1 min
Amplitaq	5μl	72°C	5 min
ddH2O	341μl		

1. Hu PBT 18.1 pBS. # 22
2. 23
3. 24
4. 25
5. 26
6. 27
7. 28
8. ddH2O
9. 789 2.1.1a L1 colony pick.
10. 18.1 Fet Brain λ DNA - 2μl of 25 ng/μl

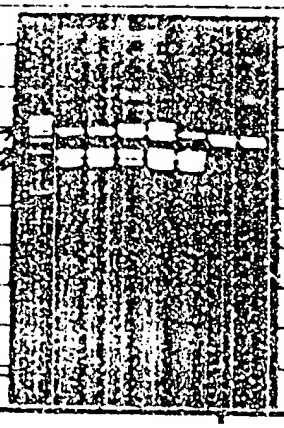


Result of PCR: Have added vector colonies have inserts

digest checks

18.1 - DNA was also digested with EcoR1

10X buffer H	20μl
2mg/ml BSA	2μl
EcoR1 20u/μl	10μl
ddH2O	118μl



Result:
Pet Plate #22-26 cut
#27-28 uncut
#22 was picked for sequencing

RG

to 45μl + 5μl DNA 37°C 2hrs → add 2μl 0.5M EDTA 4°C

To Page No.

⑥ 769 subclones amplified with PBS primers

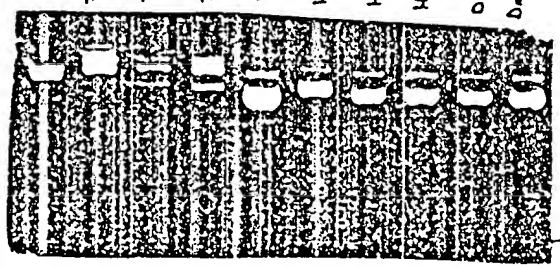
PCR products 2-1-1a L3 — 6ng/ul
40µl 2-1-1b L9 — 6ng/ul
2-1-2b L11 were dirt prep'd and quantitated
resuspended in 20µl

ⓒ PEG purify Hu PBT DNA prepared by the mini prep method on 2-1; 17-1; 17-2; 18-1 submit for sequencing
DNIS in PCR II # 2. a and b → for Riboprobe prep see Ⓐ
See photo next page

Ⓓ Prepare DNA and PEG purify from 769 subclones 2-1-1a L3 → submit for sequencing
2-1-1b L9 (4)
2-1-2b L11 (1)

To Page No.

picture of DNA submitted for sequencing



RG

IMMUNEX

DNA SEQUENCE REQUEST FORM

RESEARCHER:

attach photo here

Plasmid DNA: 1ul ea sample
also 1ul 1:5 dil. if > 1mg/ul
w. 200ng Lambda-H3
1% agarose / TAE gel
PCR fragment: 5ul of sample
w. 200ng PhiX-Hae3
1.5% agarose / TAE gel
ethidium stain after running

PROJECT NAME: EST
(to charge time to)

NAME OF CLONE: 2.1, 18.1, 17.1, 17.2

(Include VAX/GCG file name or attach seq)

PREP. METHOD: (ImmunOprep, Maxi, Qiagen, Magic, Wizard, PCR, Other)
If OTHER, please specify: Resin

Has this preparation been PEGed? (YES) NO

Has it, or a related molecule, been sequenced at IMMUNEX previously? Yes

SEQ REQ#_____ SEQUENCER Marty + Jennette
(Hu TNFR like Est)

COMMENTS: (Pertinent Information, amount of sequence needed, available oligos, PCR amplification primers, insert size etc.)

2.1 ~ 1.6 kb
18.1 ~ 3 kb
17.1 ~ 1.4 kb
insert 17.2 ~ 1.4 kb *bases*

---

vector
cloning site *cloning site*

Human PBT cDNAs in
EcoRI site of pBluescript

Clones 2.1, 18.1 also use internal primers
= # 19585
19588

17.1, 17.2 # 19588, 19575

Request#: 3631

Sequencer: J. Bartles

HuTNFR-like

HuTNFR-like Length: 2690

```
   1  TACGCCAAGC TCGAAATTAA CCCTCACTAA AGGGAACAAA AGCTGGAGCT
  51  CCACCGCGGT GGCGGCCGCT CTAGAACTAG TGGATCCCCC GGGCTGCAGG
 101  AATTCCGGTT TTTTTTCTTT TTTTTGCACA ATAAAAAGTC TTTCCATTAG
 151  AAACACAAAG ACGTGAGAGG AAGGGTTTGC ATTAATGGGC TTGGGTTTTC
 201  CACAATTTTG AATTAAAAAC CTATAGCACC TCCCAGCACA GAACAATTCA
 251  TTTCATTATT TTTAATAAAC CCAATTTACA GCAAACTTAC GGAAGTTCTC
 301  GGATTTTCAG TGAAATATGT ATTAGGTTGG TGCAAAAGTA ATTGCAATTT
 351  TTGCAATTAC TTTCCATGGT AAAAAAAAAT GCAATTACTT TTGCACAAAC
 401  TTAAATAGGT TTCATTCAGT CTTTAGATCT CAGCCATTTG GGATGAGATT
 451  CAGAACCAAA CACTGAGAAG CAGAGGCCAG GGGAAGGAGA GGTCCGTGGC
 501  TCTGAAAGAT ACTGCAGACA CGAAGCCCAG GACGTGAAGA AGTGCCTCCC
 551  GAGCATGTTC CCGCTCCGCG TGCACATCCA GCTCACACAC TTGTCGTGGC
 601  CGGTACTGAT CACCCACTCT GTGGCCAAGC TGAAGATAAT CGCAGACACC
 651  CGGTTCTGAT GAGCTGGGTA GGTCTTGATA AAGTTCATTT TATTAAAATC
 701  TTCAGAAACG TGAAATTCCA TTACAGCTCC ATTATCCTGG CCCACAAATA
 751  TCCGTCTGCT GTCATGATGG TAAGCCATAG CAGAGCAAGG AGAGGCCATT
 801  GTGTGGTAAA TGCTGGGCCA GTATTGACCA CTGTCTCTTT TCAGCCATAC
 851  CCGGATGGTT CTGTCCTCGC TGGCCGTGAT CACGCCGTCC TCCTTGGGGA
 901  TGAGCAGCGC GGCCGTGACG GCGTCCTGGT GCCCCTCGAT CTTGCTCAGC
 951  AGCACCGGGC GGCTGCTCTG CGGCCTGGAG TGGATTTCGG CCGCCATGTT
1001  CGCGCGGCGA CTGCTGCGGC CTCCTCGGCA GGCAGCCCAT CAGCTGACGC
1051  CTGGGCGCCC GTCGGAGGGC TATGGAGCAG CGGCCGCGGG GCTGCGCGGC
1101  GGTGGCGGCG GCGCTCCTCC TGGTGCTGCT GGGGGCCCGG GCCCAGGGCG
1151  GCACTCGTAG CCCCAGGTGT GACTGTGCCG GTGACTTCCA CAAGAAGATT
1201  GGTCTGTTTT GTTGCAGAGG CTGCCCAGCG GGGCACTACC TGAAGGCCCC
1251  TTGCACGGAG CCCTGCGGCA ACTCCACCTG CCTTGTGTGT CCCCAAGACA
1301  CCTTCTTGGC CTGGGAGAAC CACCATAATT CTGAATGTGC CCGCTGCCAG
1351  GCCTGTGATG AGCAGGCCTC CCAGGTGGCG CTGGAGAACT GTTCAGCAGT
1401  GGCCGACACC CGCTGTGGCT GTAAGCCAGG CTGGTTTGTG GAGTGCCAGG
1451  TCAGCCAATG TGTCAGCAGT TCACCCTTCT ACTGCCAACC ATGCCTAGAC
1501  TGCGGGGCCC TGCACCGCCA CACACGGCTA CTCTGTTCCC GCAGAGATAC
1551  TGACTGTGGG ACCTGCCTGC CTGGCTTCTA TGAACATGGC GATGGCTGCG
1601  TGTCCTGCCC CACGAGCACC CTGGGGAGCT GTCCAGAGCG CTGTGCCGCT
1651  GTCTGTGGCT GGAGGCAGAT GTTCTGGGTC CAGGTGCTCC TGGCTGGCCT
1701  TGTGGTCCCC CTCCTGCTTG GGGCCACCCT GACCTACACA TACCGCCACT
1751  GCTGGCCTCA CAAGCCCCTG GTTACTGCAG ATGAAGCTGG GATGGAGGCT
1801  CTGACCCCAC CACCGGCCAC CCATCTGTCA CCCTTGGACA GCGCCCACAC
1851  CCTTCTAGCA CCTCCTGACA GCAGTGAGAA GATCTGCACC GTCCAGTTGG
1901  TGGGTAACAG CTGGACCCCT GGCTACCCCG AGACCCAGGA GGCGCTCTGC
1951  CCGCAGGTGA CATGGTCCTG GGACCAGTTG CCCAGCAGAG CTCTTGGCCC
2001  CGCTGCTGCG CCCACACTCT CGCCAGAGTC CCCAGCCGGC TCGCCAGCCA
2051  TGATGCTGCA GCCGGGCCCG CAGCTCTACG ACGTGATGGA CGCGGTCCCA
2101  GCGCGGCGCT GGAAGGAGTT CGTGCGCACG CTGGGGCTGC GCGAGGCAGA
2151  GATCGAAGCC GTGGAGGTGG AGATCGGCCG CTTCCGAGAC CAGCAGTACG
2201  AGATGCTCAA GCGCTGGCGC CAGCAGCAGC CCGCGGGCCT CGGAGCCGTT
2251  TACGCGGCCC TGGAGCGCAT GGGGCTGGAC GGCTGCGTGG AAGACTTGCG
2301  CAGCCGCCTG CAGCGCGGCC CGTGACACGG CGCCCACTTG CCACCTAGGC
2351  GCTCTGGTGG CCCTTGCAGA AGCCCTAAGT ACGGTTACTT ATGCGTGTAG
2401  ACATTTTATG TCACTTATTA AGCCGCTGGC ACGGCCCTGC GTAGCAGCAC
2451  CAGCCGGCCC CACCCCTGCT CGCCCCTATC GCTCCAGCCA AGGCGAAGAA
2501  GCACGAACGA ATGTCGAGAG GGGGTGAAGA CATTTCTCAA CTTCTCGGCC
2551  GGAGTTTGGC TGAGATCGCG GTATTAAATC TGTGAAAGAA AACAAAAAAA
2601  AAAAAACCGG AATTCGATAT CAAGCTTATC GATACCGTCG ACCTCGAGGG
2651  GGGGCCCGGT ACCCAATTCG CCCTATAGTG AGTCGTATTA
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